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REMARKS/ARGUMENTS

The specification has been amended to update the status of the parent application which has now issued as U.S. Patent 6,166,282.

Claim 1 has been amended to clarify that the feedstream comprising oxygenates comes through the feed inlet. Claim 1 has also been amended to use consistent language to recite the "lower reaction zone". Claim 1 has been amended to recite that the regenerated catalyst is returned above the dense phase zone, consistent with the specification on page 17, lines 14-28.

The Examiner has rejected claims 1, 2, 4 and 5 under 35 U.S.C. §102(b) as anticipated by U.S. Patent 4,849,091 (the "Cabrera patent"). A comparison has been made by the Examiner between the features of the Cabrera patent and the present invention. The Examiner has concluded that in the Cabrera patent, there is a comparable component to each of the claimed components in the present invention. The Applicant respectfully disagrees with this conclusion for the following reasons.

The Cabrera patent does disclose a catalyst regenerator while the present invention is a fluidized bed reactor for converting oxygenates, such as methanol, to light olefins, including ethylene and propylene. In the Cabrera patent, spent coke-containing catalyst is introduced into the lower section of the reactor and mixed with oxygen. The coke is then burned off of the catalyst. In the present invention, an oxygenate feed is introduced into the lower part of the reactor vessel to contact the catalyst and be converted mostly into a light olefin product stream. While there are superficial similarities, there are some significant differences between the Cabrera patent and the present application. The Examiner has recited a product outlet (FIG. 2, item 36 of the Cabrera patent). However, upon reviewing the specification at column 13, line 51, it is seen that item 36 is an outlet for spent regeneration gas at a temperature of about 743°C to leave the regenerator while in the present invention, the product outlet at the top of the reactor is for removal of the olefin product stream. It is a true product outlet, not an outlet for waste gases.

The mixing riser of the Cabrera patent that the Examiner compares to the claimed feed inlet is a way that the Cabrera patent teaches the introduction of the catalyst and oxygen to the reactor while in the present invention, the feed inlet is specifically for the feedstream comprising oxygenates. Applicant has amended claim 1 to specify that oxygenates are being introduced through the feed inlet.

A further difference between the Cabrera patent and the present invention is with regards to the catalyst standpipes that are discussed on the bottom of page 5 of the Office Action. In the Cabrera patent, the purpose of the reactor is to take spent catalyst and burn off the coke at high temperatures. Spent catalyst is being introduced into the reactor to be regenerated along with quantities of oxygen and some regenerated catalyst. In the present

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invention, the spent catalyst is removed to be regenerated and fresh catalyst is introduced into the reactor.

U.S. Patent 3,919,115 (the "Stine patent") has been cited as teaching the particular type of distribution device. The Stine patent, like the Cabrera patent, deals with a regeneration reactor, not a reactor to produce a product stream. Applicant asserts that based upon the above discussion, claim 3 is no longer obvious over the cited references.

In conclusion, Applicant's position is that there are sufficient differences, including those spelled out herein to distinguish between the claims and the Cabrera patent so that Applicant's claimed structure does have novelty over the cited references. The cited references teach a catalyst regenerator which has the purpose of heating spent catalyst in the presence of oxygen to a high temperature in order to regenerate a catalyst for return to a reactor. This contrasts with the present invention which results in an actual product (light olefins) which is produced from oxygenates such as methanol.

The Examiner is invited to contact the undersigned representative to resolve any outstanding issues to a finding of allowability of the claims in this case.

Respectfully submitted,



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